MUL-1.2M-KU
DTH KU-Band Satellite Dish Manual

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Warnings and Safety Precautions

The Multicom MUL-1.2M-KU Satellite Dish and Universal Mount includes a universal mount design that is designed for roof/wall/flat surface mounting. Do NOT use the mount with a larger satellite dish antenna. Miss-use can cause damage and/or personal injury. Please carefully read and observe the following rules for your own safety.

Warnings:

- **DANGER**: Do not install near powerlines or other wires.
- **DANGER:** Do not install on windy/rainy/snowy/icy days.
- **DANGER:** Do make sure that that area the mount is being installed on is structurally sound and can handle the ballast-mount-antenna weight, wind load, snow/ice load, etc.
- Do make sure the mount, mast, and satellite antenna are properly electrically grounded.
- Do make sure that the mounting area is properly sealed from leaks.
- Installation must meet local codes, regulations, standards, and ordinances for safety, appearance, etc and must be done by a licensed professional installer.

DANGER: Improper and/or inadequate installations can be very dangerous and very susceptible to wind-related or weight-related damage to property and personnel – potentially resulting in SERIOUS INJURY OR DEATH. Installation must be done by a licensed professional installer.

1. Brief Introduction

This manual introduces the equipment in detail. Reading through this entire document before installing the equipment can help you understand this product and familiarize you with the product features, technical parameters and the operating environment while potentially avoiding safety issues, hazards, and other problems and issues.

1.1 Product Description

The Multicom MUL-1.2M-KU DTH satellite dish has been specifically designed for DTH use. Mechanically and electrically tested and field proven, this satellite dish provides the performance necessary for demanding residential and commercial reception applications.

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2. Installation

2.1 Warnings

WARNING - Weather: Installing dish antennas and mounts on windy days is extremely dangerous and must never be attempted. Due to the size and surface area of the dish, even slight wind/gusts create strong forces creating unsafe conditions. ATTEMPTING TO INSTALL OR MOUNT A DISH ON WINDY DAYS COULD RESULT IN DEATH OR SERIOUS INJURY. Multicom is not responsible or liable for damage or injury resulting from dish antenna, mount, and/or related equipment installations.

WARNING - Structural: Dish antennas and mounts improperly assembled or installed on inadequate structures are susceptible to wind damage. This damage can be very serious or life threatening. The owner/installer assumes full responsibility that the installation is structurally sound to support all loads (ballast, weight, wind, and ice) and properly sealed against leaks and protected from other damage.

2.2 Selecting an Installation Site

Optimum installation requires an unobstructed view at the correct look angle to receive the highest powered satellite signal transmissions available.

The any roof mount installation must be flat, without damage or other issues, and with a large enough clear area to accommodate the mount and dish antenna. The roof must also be able to handle the load of roof mount, dish antenna, concrete ballast, installers, and wind, snow, ice, etc.

Insure that there are connections nearby for proper grounding.

Insure that the installation and overhead area is free of electrical cabling/wires, overhead lines, etc.

In high wind-prone areas, the assembly should be tethered to other structural members on the roof to prevent sliding/flying off.

2.3 Installation Site Prep

Determine the area for installation and clear it of any debris, loose materials, etc. Insure that the area is clean and dry.

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2.4 Assembly Details

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Assemble the mount per the photos, drawing, part list, and instructions below.

ABOVE: Front view of 1.2m satellite dish with LNBF mount

ABOVE: Side view of the satellite dish, mount, and supports

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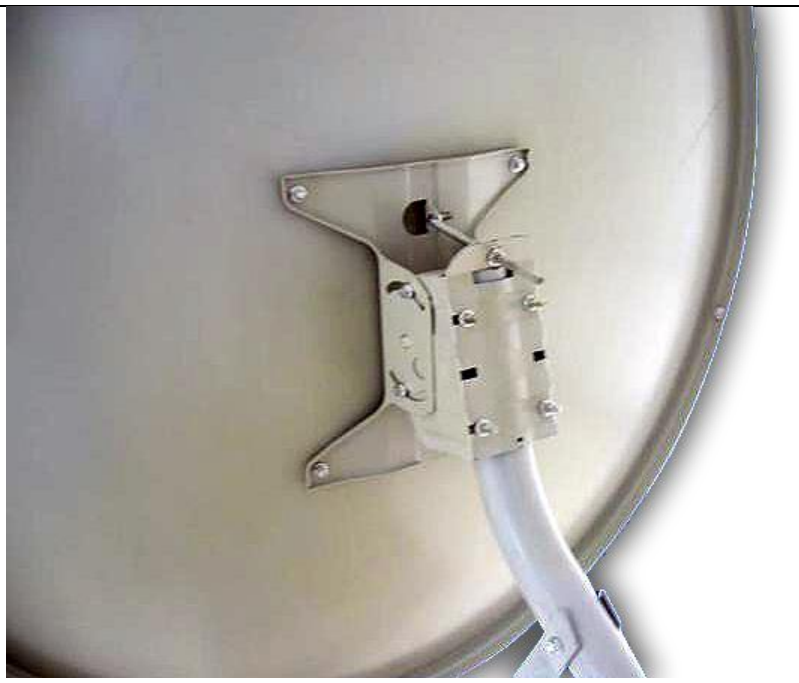
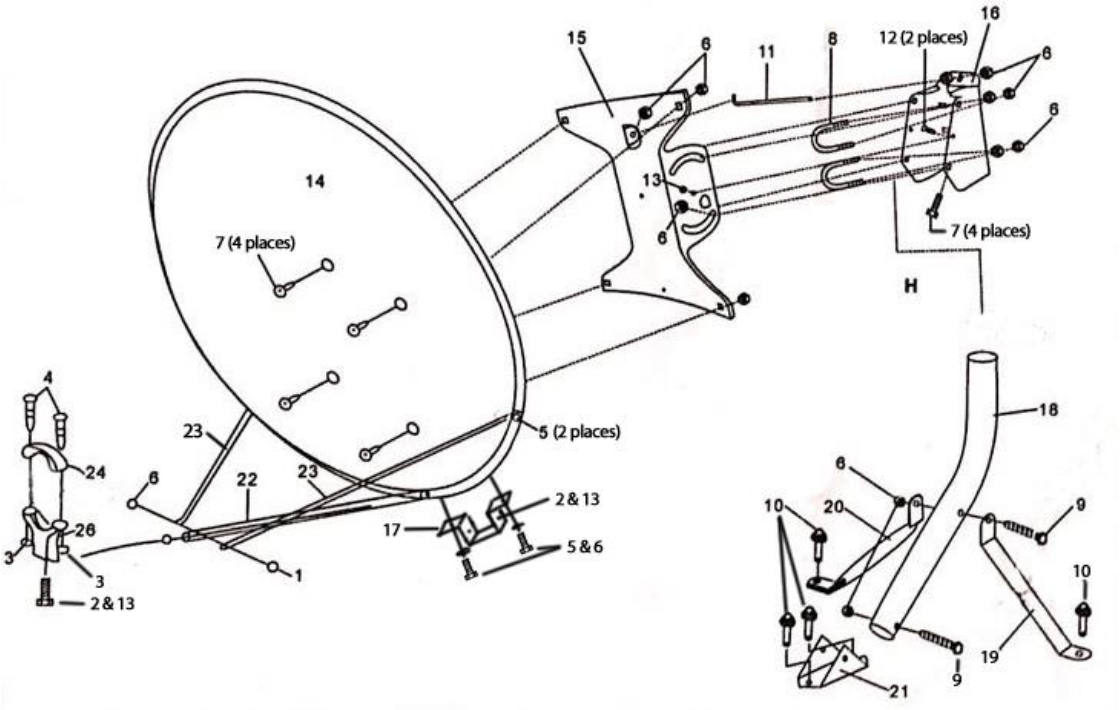


ABOVE: Rear view close up of dish with mount



ABOVE: Overview of the entire assembly

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2.5 Dish Antenna Assembly

Item	Part	Description	Quantity	Comments
1	Bolt	M8 x 35	1	LNBF Arm Braces to LNBF Arm
2	Bolt	M6 x 35	2	LNBF Clamp to LNBF Arm
3	Hex Nut	M6	2	LNBF Clamp
4	Round Head Phillips Bolt	M6 x 25	2	LNBF Clamp
5	Bolt	M8 x 15	4	LNBF Braces to Reflector, LNBF Arm Bracket
6	Flange Nut	M8	22	
7	Carriage Bolt	M8 x 16	8	Reflector, Angle Bracket
8	U-Bolt	M8	2	
9	Bolt	M8 x 75	2	Mast Supports, Base
10	Concrete Anchor Bolt	M8 x 60	4	Expansion bolts
11	Elevation Adjust Bolt	M8	1	
12	Bolt	M6 x 12	2	Bracket pivot
13	Flange Nut	M6	4	
14	Dish Reflector	1.2M	1	
15	Reflector Mount Bracket		1	
16	Mast Reflector Bracket		1	
17	LNBF Arm Bracket		1	On bottom of reflector to attach LNBF Arm
18	Mast/J-pipe		1	
19	Mast Support (Left)		1	
20	Mast Support (Right)		1	
21	Mast Base Bracket		1	
22	LNBF Arm		1	LNBF Clamp on one end , Reflector on other
23	LNBF Arm Brace		2	
24	LNBF Clamp (Top)		1	
25	Flat Washer	M8	8	
26	LNBF Clamp (Bottom)		1	

ABOVE: 1.2M Dish – Mount Parts List

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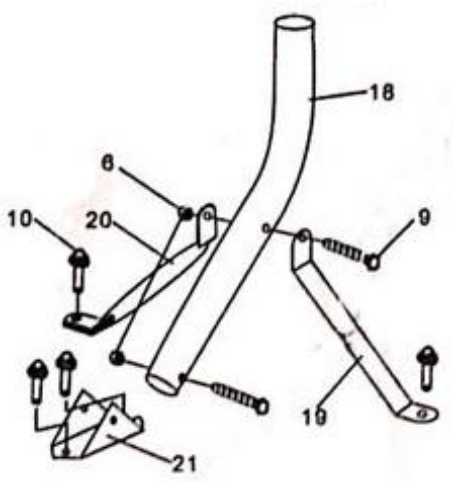
2.5.1 Assemble Universal Mount

1. Pre drill holes in mounting surface using base (21) as a template
2. Attach base to mounting surface with 2 anchor bolts (8)
3. Install mount arm/pipe (18) into base (21)
4. Insert and loosely tighten both mast/pipe support legs (20), using nut (7), screw (19)



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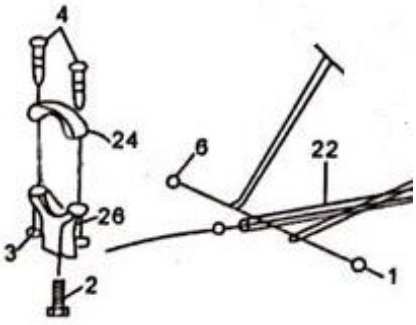
2.5.2 Assemble LNBF Feed Support Arm

1. Assemble top and bottom LNBF holder/mount/clamp (12 and 13) with 2 screws (1)
2. Attach bottom LNBF holder (12) to LNBF feed arm (11) with screw (2)
3. Insert plastic plug (14) into top of LNBF feed arm



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4. Attach LNBF feed arm (11) to reflector bracket/mount (10) with 2 nuts (5) and 2 screws (3).

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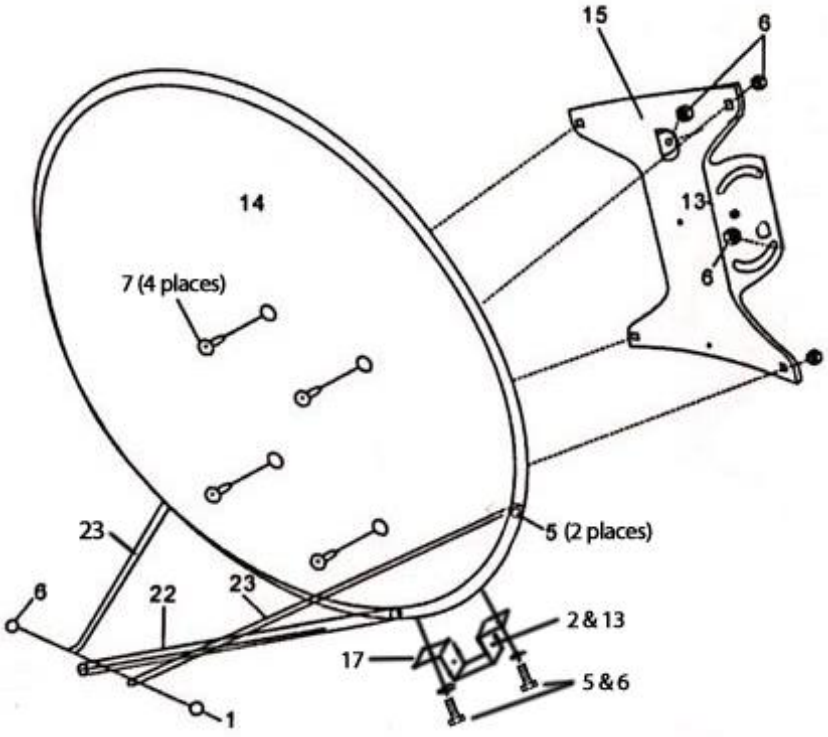
2.5.3 Assemble Satellite Dish and Mount

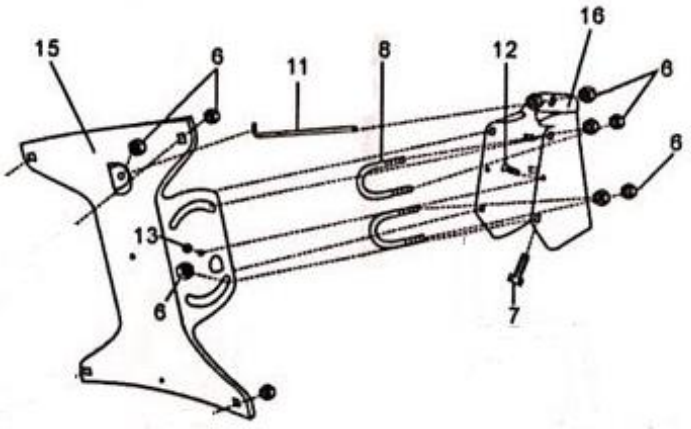
1. Attach satellite dish reflector (14) to satellite reflector bracket/mount (15) with 4 nuts (6) and screws (7)



2. Tighten all pieces

2.5.4 Assemble Mast/Pipe Mount and Clamp

1. Loosely assemble 2 u-bolts (8) through the pipe mount (16) using 4 nuts (6)
2. Mount the pipe mount assembly (16) into the satellite reflector bracket (15) using 4 bolts (4) with their heads on the inside and 4 nuts (5) on the outside.
3. Mount the dish assembly on the mast/pipe, orient and then tighten all screws/nuts.



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2.5.5 Install LNBF

1. Take care to align LNBF so that it is positioned correctly (not rotated and so that it is facing dish).
2. Mount with F-connectors facing downwards.
3. Do not overtighten LNB clamp.
4. Use high quality compression connector on coaxial cable.
5. Attach and tighten coaxial cable to LNBF – take care not to overstress F-connector.
6. Route coaxial cable along the LNB feed arm and use the cable clip or cable ties to attach to the arm.

Note that Multicom also offers optional adapters that allow Dish Network or DirecTV LNBFs to be mounted on Multicom satellite dishes.

2.6 Satellite Dish Alignment Instructions

1. Write down desired the azimuth and elevation to point the dish
2. Using a magnetic/electronic compass to determine the azimuth direction
3. Adjust the azimuth – making sure the U-bolts are loosened first, then tighten when in place at the correct azimuth.
4. Using a protractor determine the elevation
5. Adjust the elevation with the long elevation adjustment bolt and its nut at the top of the mast clamp – making sure the elevation bolts/nuts are loosened first

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2.7 Additional Installation Items

Electrically ground the antenna-mast-mount assembly per the US National Electric Code (NEC) standards. This material is not provided.

In high wind prone areas, the assembly should be tethered to other structurally sound members on the structure to prevent sliding/flying in any direction. These materials are not provided.

3. Maintenance

3.1 Inspection

It is recommended that the installation be inspected every 6 months or more and after every severe weather storm.

Check for:

- Loose bolts
- Loose mounts/clamps
- Corrosion
- Damage to dish, mount, brackets
- Loose/damaged tethers
- Movement of the dish and/or LNBF and/or mount
- Roof damage, leaks
- Loose ground connections

Resolve all issues immediately to insure the highest performance and safety.

4. After-Sales Service

1. If the equipment malfunctions, immediately contact your local in-country dealer or distributor or directly call our Multicom USA Technical Support Hotline 407-331-7779.
2. The onsite installation, maintenance, and operation of equipment must be performed by trained personnel

5. Disclaimer

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6. Multicom Satellite-Related Dishes, LNBFs, Cable

KU Band	
KU Band, Offset Satellite dish – 60CM	**MUL-60CM-KU**
KU Band, Offset Satellite dish – 75CM	**MUL-75CM-KU**
KU Band, Offset Satellite dish – 90CM	**MUL-90CM-KU**
KU Band, Offset Satellite dish – 1M	**MUL-1M-KU**
KU Band, Offset Satellite dish – 1.2M	**MUL-1.2M-KU**
C Band	
C Band, Prime Focus Satellite dish – 1.8M	**MUL-1.8M-W**
C Band, Prime Focus Satellite dish – 2.4M	**MUL-2.4M-W**
Roof Mounts	
Non Penetrating Roof Mount – 1.0/1.2M	**MUL-NPRM**
Adapters	
KU adapter for Dish Pro LNBF	**MUL-KU-LNBF-ADAPTER**
KU Band LNBF	
KU Band LNBF – 1 Port	**MUL-SINGLE-LNBF**
KU Band LNBF – 2 Port	**MUL-TWIN-LNBF**
KU Band LNBF – 4 Port	**MUL-QUAD-LNBF**
KU Band LNBF – 8 Port	**MUL-OCTO-LNBF**
Coaxial Cable	
RG-6 90% single shield drop cable	**M690-BV**
RG-6 60% single shield drop cable	**M660-BV**
RG-6 60% trishield drop cable	**M660T-BV**

Check the Multicom website (www.multicominc.com) and product catalog (www.multicominc.com/catalog/) for these and other installation tools, test instruments, and products such as bulk cable, jumpers, connectors, splitters, taps, and much more.

The contents of this manual are subject to change and/or update without notice.

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